

## **Drinking Water Treatment and Research Fund Report to the Governor and the Legislature Calendar Year 2004**

### **I. INTRODUCTION**

The California Department of Health Services (Department) herein submits the sixth annual report to the California State Legislature and the Governor on the implementation of the Drinking Water Treatment and Research Fund (DWTRF). This report is mandated under the provisions of Senate Bill (SB) 2198 (Chapter 997, Statutes of 1998) and cited in Health and Safety Code Section 116367(e) as follows:

*“the department shall report annually to the Governor and to the Legislature on any money provided to a public water system pursuant to this section”*

This report identifies the DWTRF Program funding commitments and expenditures issued by the Department during the period of December 16, 2003, through December 31, 2004.

### **II. BACKGROUND**

Senate Bill (SB) 2198 created the DWTRF for providing financial assistance to public water systems with drinking water sources contaminated by gasoline oxygenates from leaking underground storage tanks. Under the provisions of SB 2198, the Department is authorized to reimburse public water systems for the costs incurred to (1) replace drinking water supplies contaminated by gasoline oxygenates, (2) install treatment systems to restore the use of contaminated drinking water supplies, and (3) conduct investigations to determine the person(s) responsible for the oxygenate contamination of the drinking water sources.

Assembly Bill 2481 (Chapter 999, Statutes of 2002), expanded the scope of financial assistance authorized under the DWTRF to include replacement of drinking water wells threatened with imminent oxygenate contamination.

SB 2198 also authorized the Department to expend up to \$1 million annually for conducting research projects to develop cost-effective treatment technologies to remove gasoline oxygenates from drinking water sources and development of strategies to protect drinking water sources from contamination by gasoline oxygenates. The Department sponsored a Nominal Group Technique (NGT) Workshop to identify the priority research projects that should be considered for funding by the DWTRF Program. A Research Advisory Committee was convened by the Department to review the findings of the NGT Workshop final report and made recommendations regarding the highest priority research projects.

The funding sources for the DWTRF included an initial General Fund appropriation of \$5 million and annual fund transfers of \$5 million from the State Water Resources Control Board's Underground Storage Tank Cleanup Trust Fund that are available until January 1, 2010.

In January 1999, the Department adopted a secondary drinking water standard for the gasoline oxygenate Methyl Tertiary Butyl Ether (MTBE) and subsequently adopted a primary drinking water standard for MTBE, in February 2000.

### **III. SUMMARY OF FUNDING COMMITMENTS AND EXPENDITURES**

During the 2004 reporting period, the Department approved \$1,347,514 in new DWTRF Program funding commitments, bringing the total amount of funding commitments since the creation of the fund to \$13,470,399. Additionally, DWTRF Program expenditures for 2004 totaled \$2,156,513, bringing the amount of expenditures since the fund's creation to \$8,006,773.

These funding commitments and expenditures were issued by the Department for corrective action and research projects as authorized under the statute.

A brief description of the projects approved during this reporting period, as well as previously approved ongoing and completed projects, is provided below. In addition, a summary of the DWTRF Program funding commitments and expenditures is provided in Appendix A and B.

#### **A. Corrective Action Projects**

The Department issued funding commitments totaling \$1,347,514 to public water systems for corrective action projects during this reporting period. The scope of these projects included installation of a new drinking water well to replace of drinking water supplies contaminated by MTBE, and supplemental funding for the installation of a wellhead treatment systems to remove MTBE from drinking water supplies. Since the creation of the DWTRF Program on January 1, 1999, the Department has issued funding commitments totaling \$12,551,896 for corrective action projects.

Additionally, the Department expended \$1,493,750 in cost reimbursements to public water systems for corrective action projects during the reporting period. The Department has expended a total of \$7,344,010 in reimbursements to public water systems for corrective action projects since the creation of the DWTRF Program.

#### New Projects Approved in 2004

- California Water Service Company – Salinas System (Monterey County): Well No. 13-02 Replacement Project -

The Department approved \$1,115,800 in funding to the California Water Service Company (CWSC) for the construction of a new drinking water well to replace the drinking water supply

from Well No. 13-02, which is contaminated by MTBE from suspected leaking underground gasoline storage tanks in the surrounding area.

CWSC selected an engineering consulting firm to perform the project management activities and is conducting an investigation to find a suitable site for the planned replacement well.

The Department did not receive any cost reimbursement requests from CWSC for this project during the reporting period.

- Riverview Water District (San Diego County): Well Nos. 1,2& 3 – Wellhead Treatment System

The Department approved \$231,714 in supplemental funding to the Riverview Water District (RWD) for the installation of a wellhead treatment system for the three (3) wells contaminated by MTBE. Overall, the Department has approved funding for this project totaling \$758,814.

Construction of the wellhead treatment system was completed in May 2003 and the wells have resumed production of drinking water to serve the customers of the RWD. The supplemental funding was approved to reimburse RWD for additional eligible project costs.

The Department issued reimbursements to the RWD totaling \$223,720, for the installation of the wellhead treatment system during this reporting period. Overall, the Department has approved reimbursements to RWD for this project totaling \$695,979.

#### Previously Approved Ongoing Projects

- Fruitridge Vista Water Company (Sacramento County): Well Nos. 1 & 2 Replacement

The Department approved funding in the amount of \$1,477,000 to Fruitridge Vista Water Company (FVWC) for the construction of a new drinking water well to replace the drinking water supply from Well Nos. 1 and 2, which have been shutdown due to contamination by MTBE from suspected leaking underground gasoline storage tanks. Subsequently, FVWC revised the scope of the project to install wellhead treatment for Well Nos. 1 and 2, due to difficulties in finding a suitable site for a new well.

The Department has approved hydro-geologic testing of Well No.2 to determine the impacts to ground water quality from installing wellhead treatment and resuming operation of the well.

The Department did not receive any cost reimbursement requests from FVWC for this project during the reporting period. Overall, the Department has issued reimbursements to FVWC totaling \$9,450 for preliminary engineering work on this project.

- Yosemite Spring Park Utility Company (Fresno County): Well No. 37A and 40A MTBE Treatment Plant Project

The Department approved an additional \$1,246,764 in funding to the Yosemite Spring Park Utility Company (YSPUC) for the construction of an MTBE treatment system for Well Nos. 37A and 40A, which have been shutdown due to contamination by MTBE from a nearby leaking underground gasoline storage tank. The overall funding commitment for this project totals \$1,617,764. The construction of the MTBE treatment system is substantially complete and operation is scheduled for January 2005.

During this reporting period, the Department issued reimbursements totaling \$1,270,030 to the YSPUC for the construction of the wellhead treatment system. Overall, the Department has issued reimbursements to YSPUC totaling \$1,538,322 for the planning, design, and construction of this project.

#### Previously Approved Completed Projects

- Cambria Community Services District (San Luis Obispo County): Santa Rosa Creek Well Nos. 1 and 3 Replacement Project

The Department issued reimbursements totaling \$1,520,710 to the Cambria Community Services District (CCSD) for the construction of a new drinking water well, associated wellhead treatment system, and distribution pipelines, to replace the drinking water supply of Santa Rosa Creek Well Nos. 1 and 3, which have been shutdown due to an imminent threat of contamination by MTBE from a nearby leaking underground gasoline storage tank.

The construction of the drinking water well, treatment system, and pipeline was completed and began operation serving the customers of Cambria in June 2002.

- Citizen's Utilities Company – Montara District (San Mateo County): MTBE Treatment System Project

The Department issued reimbursements totaling \$111,073 to the Citizen's Utility Company for the installation of a wellhead treatment system for a drinking water well serving their Montara water system, which has been shutdown due to contamination by MTBE from a nearby leaking underground gasoline storage tank. The treatment system installation was completed in 2000 and the well has resumed production of drinking water to serve the customers of the Montara District.

In June 2003, the Department received reimbursement in the amount of \$111,073, from the new owner of the Citizen's Utilities Company (Cal-Am Water Company) for the funds received from the DWTRF. This reimbursement was made as a result of a legal settlement between Cal-Am Water Company and the identified party responsible for the MTBE contamination of the drinking water well.

- Fruitridge Vista Water Company (Sacramento County): Well No. 11 Replacement Project

The Department issued reimbursements totaling \$1,375,486 to the FVWC for the construction of two (2) new drinking water wells and the required water distribution pipeline to replace the drinking water supply of Well No. 11, which has been shutdown due to contaminated by MTBE from a nearby leaking underground gasoline storage tank. The construction of the wells and distribution pipeline was completed in 2001 and the wells are operating to provide drinking water to the customers of FVWC.

- South Tahoe Public Utility District (Nevada County): Gardner Mountain Well and Pipeline Project

The Department issued reimbursements totaling \$457,401 for the construction of a new drinking water well and the required distribution system pipeline to replace the drinking water supply of an existing well, which has been shutdown due to contaminated by MTBE from a nearby leaking underground gasoline storage tank. The construction of the new well and distribution pipeline was completed in 2001.

- South Tahoe Public Utilities District (Nevada County): Arrowhead Well Replacement Project

The Department issued reimbursements totaling \$370,225 for the construction of a new drinking water well to replace the drinking water supply of the Arrowhead Well, which has been shutdown due to contaminated by MTBE from a nearby leaking underground gasoline storage tank. The construction of the new Arrowhead well was completed in 2001.

- City of Santa Monica (Los Angeles County): Charnock Well Field Contamination Source Investigation

The Department approved \$1,631,000 in funding to the City of Santa Monica for the costs incurred from January 1, 2000 through June 30, 2001, to investigate the sources of MTBE contamination in the drinking water supply provided by the Charnock Well Field.

The Department issued reimbursements to the City of Santa Monica totaling \$291,806 for the invoiced costs of the Charnock Well Field investigative work.

- Riverview Water District (San Diego County): Well No. 1 - Alternate Water Supply Purchase

The Department issued reimbursements to the Riverview Water District totaling \$973,558 for the incremental cost to purchase an alternate drinking water supply to replace the drinking water supply from Well Nos. 1, 2, and 3, which was shutdown due to contamination by MTBE. This funding terminated when the operation of the wellhead treatment system was initiated.

## B. Research Projects

The Department did not award any grant contracts for new research projects during the reporting period. However, the Department expended \$662,763 for previously approved research projects.

### Previously Approved Ongoing Projects

- University of California, Davis - Field Study of the Impact of a Gasohol Spill on Natural Attenuation of Pre-existing BTEX/MTBE Contamination

The Department approved \$918,503 in funding to the University of California, Davis, to conduct a field study of the impact of a gasohol spill on pre-existing BTEX-MTBE contamination sites.

This three (3) year research project involves a controlled release of ethanol and a tracer compound into an existing MTBE-BTEX contamination plume and comprehensive sampling and monitoring of the MTBE-BTEX plume movement and attenuation. The research is being conducted at an existing contamination site located at the Vandenberg Air Force Base (VAFB).

The installation of the groundwater monitoring wells and ethanol injection system is complete. The field study work was initiated in mid-2004, with ethanol and tracer compound injections and the sampling / monitoring of the plume behavior. The field research work is scheduled to continue through July 2005.

The Department issued reimbursements to UC Davis totaling \$615,126 for the ongoing field research activities during the reporting period.

### Previously Approved Completed Projects

- Contra Costa Water District (Contra Costa County) – Guidance Manual on Minimizing MTBE Contaminants in Lakes and Reservoirs

The Department approved \$150,000 in funding commitments to the Contra Costa Water District (CCWD) for conducting a collaborative research project with co-funding by the American Water Works Association Research Foundation (AWWARF) for the development of a guidance manual for minimizing MTBE and other oxygenate contamination in lakes and reservoirs. The total research project cost is \$300,000, with the balance of the project funding (\$150,000) provided by the AWWARF.

The fieldwork for this project was completed during calendar year 2001, and the final report was submitted to the Department in early December 2003. The Department issued reimbursements totaling \$47,637 to CCWD during the reporting period. The Department is currently awaiting the submittal of additional supporting documentation from CCWD prior to issuing final payment.

**APPENDIX A  
 SUMMARY OF EXPENDITURES**

Applicant	2004	Previous Years	Total
Cambria CSD (Well Replacement)	-0-	\$1,520,710	\$1,520,710
Citizen's Utilities Co. (Wellhead Treatment)	-0-	\$111,073	\$111,073
Fruitridge Vista WC (Well #2 Replacement)	-0-	\$9,450	\$9,450
Fruitridge Vista WC (Well #11 Replacement)	-0-	\$1,375,486	\$1,375,486
Riverview WD (Wellhead Treatment)	\$223,720	\$472,259	\$695,979
Riverview WD (Water Purchase)	-0-	\$973,558	\$973,558
City of Santa Monica (Charnock Investigation)	-0-	\$291,806	\$291,806
South Tahoe PUD (Gardener Mtn. Well)	-0-	\$457,401	\$457,401
South Tahoe PUD (Arrowhead Well)	-0-	\$370,225	\$370,225
Yosemite Spring Park UC (Well #1 Treatment)	\$1,270,030	\$268,292	\$1,538,322
<b>Subtotal (Corrective Action)</b>	<b>\$1,493,750</b>	<b>\$5,850,260</b>	<b>\$7,344,010</b>
Univ. of California, Davis (Ethanol Research Project)	\$615,126	-0-	\$615,126
Contra Costa WD	\$47,637	-0-	\$47,637
<b>Subtotal (Research)</b>	<b>\$662,763</b>	<b>-0-</b>	<b>\$662,763</b>
<b>Total Expenditures</b>	<b>\$2,156,513</b>	<b>\$5,850,260</b>	<b>\$8,006,773</b>

**APPENDIX B**  
**SUMMARY OF FUNDING COMMITMENTS**  
**(Corrective Action)**

Public Water System	2004	Previous Amount	Total
Cambria CSD (Well Replacement)	-0-	\$1,806,000	\$1,806,000
Citizen's Utilities Co. (Wellhead Treatment)	-0-	\$111,073	\$111,073
CWS – Salinas District (Well #1-04 Replacement)	-0-	\$700,118	\$700,118
CWS – Salinas District (Well #13-02 Replacement)	\$1,115,800	-0-	\$1,115,800
Fruitridge Vista WC (Well #2 Replacement)	-0-	\$1,477,000	\$1,477,000
Fruitridge Vista WC (Well #11 Replacement)	-0-	\$1,386,292	\$1,386,292
Riverview WD (Wellhead Treatment)	\$231,714	\$527,100	\$758,814
Riverview WD (Water Purchase)	-0-	\$973,558	\$973,558
City of Santa Monica (Charnock Investigation)	-0-	\$1,631,000	\$1,631,000
South Tahoe PUD (Gardener Mtn. Well)	-0-	\$564,677	\$564,677
South Tahoe PUD (Arrowhead Well)	-0-	\$409,800	\$409,800
Yosemite Spring Park UC (Wellhead Treatment)	-0-	\$1,617,764	\$1,617,764
<b>Total (Corrective Action)</b>	<b>\$1,347,514</b>	<b>\$11,204,382</b>	<b>\$12,551,896</b>

**SUMMARY OF FUNDING COMMITMENTS**  
**(Research Projects)**

Research Sponsor	2004	Previous Amount	Total
Univ. of California, Davis (Gasohol/MTBE Study)	-0-	\$918,503	\$918,503
Contra Costa WD	-0-	\$150,000	\$150,000

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<b>Total (Research)</b>		<b>-0-</b>	<b>\$1,068,503</b>
<b>\$1,068,503</b>			
<b>Overall Total Commitments</b>	<b>\$1,347,514</b>	<b>\$12,122,885</b>	<b>\$13,470,399</b>
<b>(Corr. Action &amp; Research)</b>			